

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table X, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

The dates on which reports of thunderstorms for the whole country were most numerous were: 6th, 253; 11th, 268; 28th, 208.

Thunderstorm reports were most numerous in Ohio, 298; North Carolina, 202; Missouri, 199; Florida, 194; Colorado, 192; Pennsylvania, 180; Louisiana, 178.

Thunderstorms were most frequent in Florida and Louisiana, 31 days; Colorado, Mississippi, and New Mexico, 28; Alabama and South Carolina, 27; Minnesota, North Carolina, Tennessee, and Texas, 26.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz, from the 1st to the 8th, inclusive, and also the 30th and 31st. On the remaining twenty-one days of this month 89 reports were received, or an average of about four per day. The dates on which the number of reports especially exceeded the average were: 9th, 29; 11th, 14; 18th, 12.

Auroras were reported by a large percentage of observers in North Dakota, 40 per cent; Minnesota, 26; Wisconsin, 22.

Auroras were reported most frequently in North Dakota, 7 days; Minnesota, New Hampshire, and Wisconsin, 6.

DAMAGE BY LIGHTNING.

The statistics of casualties by lightning so far as concerns

property, are fairly well given in the preceding section on local storms by Mr. A. J. Henry. The injuries done to individuals, as furnished by Mr. Alexander McAdie, are as follows:

First decade: killed, 18; injured, 27. Second decade: killed, 28; injured, 35. Third decade: killed, 20; injured, 32. Total for the month: killed, 76; injured, 84.

INLAND NAVIGATION.

The *extreme and average stages of water* in the rivers during the current month are given in Table VII, from which it appears that the only river that has reached the danger line was the Red River, at Shreveport, La., on the 1st. Other rivers that rose rather high were the Arkansas, which reached a maximum on the 1st and 3d, and the Savannah which was highest at Augusta on the 23d. The average stage of the Missouri, upper Mississippi and the Ohio rivers, and their tributaries has been remarkably low, greatly interfering with navigation.

METEOROLOGY AND MAGNETISM.

For general remarks relative to this subject see page 7 of the REVIEW for January, 1895.

The comparison of the air temperature with magnetic horizontal force is shown in detail on Chart V, and the special features of the August curves are as follows:

The correction for slope is +1 for the horizontal force at Toronto and Washington. The reduction to a mean base line is +6° for temperature, and +2 for magnetic force. For the dates August 9 to 13, inclusive, being days of wide amplitude, the resulting values of magnetic force are divided by 2, in order to preserve a convenient diagram.

STATE WEATHER SERVICES.

The following extracts in regard to the general weather conditions in the several States and Territories are taken from the monthly reports of the State Weather Services.

Snowfall and rainfall are expressed in inches.

Alabama.—The month as a whole was one of frequent showers and continued warmth with considerably more than the average amount of cloudiness. There was not a single day on which rain did not fall in some portion of the State. The continued moisture seriously retarded the fruitage of cotton. No severe storms occurred and but very little damage resulted to the abundant corn and other crops.

Arkansas.—The monthly mean temperature was 1.0° above the normal and the rainfall was 0.66 less than the usual amount. The month as a whole was very unfavorable for cotton. In the early part of the month heavy showers occurred in most parts of the State, which prevented farmers from cleaning their crops and also induced a very rank growth of the plant, and complaints were numerous of the plant not fruiting well. The corn crop promises well, though the late planting would have been better with seasonable rains during the middle and latter part of the month. The weather has been very favorable for saving fodder and haymaking. At the close of the month rain was much needed for late potatoes and fall gardens generally, and in some sections pastures were failing and water becoming scarce.

California.—The mean temperature for the State was 0.7° below the normal and the rainfall normal. Thunder and lightning occurred at Bodie on the 12th; Shasta on the 19th; Greenville, Quincy, and Edmanton (all in Plumas County), on the 26th; Iowa Hill on the 27th, and Yreka on the 28th and 29th. Light frosts were reported from Bodie on the 3d, 8th, 9th, 10th, 13th, 14th, 19th, 20th, and 26th; Greenville on the 16th, 17th, 19th, 22d, 26th, and 31st; Quincy on the 17th, 18th, and 26th; and Julian on the 27th. Killing frosts were reported from Bodie on the 1st, 15th, 16th, and 17th; Julian on the 28th and 30th; and Greenville on the 27th.

Colorado.—The month was slightly warmer than the average, the mean temperature being about one degree above the normal. The mean precipitation for the State was nearly half an inch greater than the normal. Rainfall was generally in excess over the mountain districts, San Luis Valley, and Otero and Bent counties, but over limited

areas in the eastern border counties, the upper Arkansas and Platte Valleys the amounts recorded were less than usual.

Connecticut.—(See *New England*.)

Delaware.—(See *Maryland*.)

Florida.—The mean temperature, 81.3°, was 0.5° less than the normal. The highest temperature, 99°, was recorded at Earnestville on the 20th, and the lowest, 60°, at Moseley Hall on the 27th. The average precipitation was 6.20, or 0.43 less than the usual amount. The greatest amount, 9.92, was reported from Orange Lake, and the least, 1.08, from Amelia. Thunderstorms were frequent in all sections of the State.

Georgia.—The average precipitation from the records of 59 stations was 7.55, ranging from 15.38 at Dahlonaga, to 3.99 at Columbus. The total rainfall at Atlanta, 8.55, was about 1 inch more than that for any August during the past 17 years at that station. The average temperature for 51 stations was 79.1. The highest temperature, 100°, was recorded at Millen on the 20th, and the lowest, 47°, at Clayton on the 2d.

Idaho.—The mean temperature for the State was 65.8°. The highest daily temperature, 106°, was recorded at Lewiston on the 2d, and the lowest, 24°, at Hailey on the 9th. The average total precipitation was 0.25; the greatest amount, 1.09, occurred at Grangeville, and the least (no rain) was reported from American Falls, Kootenai, and Murray. Thunderstorms were frequent in several sections of the State. Frosts were reported at Chesterfield on the 9th, 10th, 11th, 14th, 26th, 30th, and 31st; at Hailey, 9th; Martin, 7th, 19th, and 26th; Murray, 14th; Paris, 9th; St. Anthony, 9th, and 16th; Salubria, 10th and 14th, and Swan Valley, 9th, and 10th.

Illinois.—The dry period, which began July 30, continued practically unbroken until the 23d, although a few thundershowers occurred on the 5th, 6th, 10th, and 11th, and in central and southern sections, the 18th to 20th. The average total precipitation was 2.85, or 0.16 below the normal. The greatest fall occurred in the northeast corner of the State, Chicago reporting 6.49; La Grange, 5.69; Oswego, 5.00; Wheaton, 4.99; Aurora, 4.80; and St. Charles, 4.35. The least occurred in the extreme southern part, Cairo reporting but 0.71; east-central counties were also largely deficient in rainfall. The temperature was nearly 2° a day above the normal and added much to the drought conditions. The greatest heat came during the week from the 9th to 17th, a second warm period coming in from the 23d to 28th. Cool periods occurred from 1st to 3d, 19th, to 21st, and 29th to 31st.

Indiana.—The temperature was excessive in all parts of the State. The average was 75.7°, or 3.7° above the normal. The average total precipitation, 2.20, was 0.72 less than the usual amount. A deficiency was noted in all portions of the State. The continued dry weather was very discouraging, and not beneficial to growing crops and plowing. The prospect for a very great yield of corn has been lessened. Pastures and meadows became very dry and brown, and as creeks were low and springs and wells also dry, stock water was scarce, and the ground too dry for plowing. The rains toward the end of the month, however, did some good, and improved crops in localities.

Indian Territory.—(See *Oklahoma*.)

Iowa.—The month was unusually favorable. The mean temperature was 71.9°, or about 1° above the normal. The average rainfall was 4.43, as shown from reports from 88 stations, or 0.83 above normal. The heaviest rainfall reported for the month was 10.63 at Panama, Shelby County. The crops were greatly benefited by this excess of moisture.

Kansas.—The mean temperature was 76°, or 0.4° below the normal. The highest temperature, 107°, was reported at Achilles on the 26th, and the lowest, 42°, at Hays, on the 1st. The total average precipitation was 5.20, or 2.18 above the normal. Lightning killed nine head of cattle and one mule at Achilles on the night of the 1st-2d, a steer at Blaine on the 4th, a team of horses at Manhattan, and a cow in Pottawatomie County on the 9th, also Mr. Andrew Michaelson who lived about 4 miles southeast of Blaine. On the 14th lightning struck Mr. J. Maitland while standing at a window in his residence in Topeka, rendering him unconscious for a time. On the same day it damaged the Methodist Episcopal church at Blaine. On the night of 19-20th, 5.91 inches of rain fell at Manhattan.

Kentucky.—The mean temperature, 76.6°, was slightly in excess of the normal. A brief heated term occurred on the 16th, 17th, and 18th. In the counties contiguous to the Ohio River and those in the southern section, the temperature was slightly in excess of that in the mountain districts and the eastern and southeastern portions. The average precipitation was about an inch less than the normal amount, though a few districts show a considerable excess. The rainfall was distributed with moderate uniformity throughout the month and until near its close was generally sufficient for the needs of vegetation.

Louisiana.—The monthly rainfall ranged from less than 1.00 in portions of the northwestern parishes, to more than 6.00 in the northeastern parishes. The average for the State was three-tenths of an inch less than the usual amount. The temperature averaged 1.5°, daily, higher than usual. The highest temperature, 101°, was reported from Liberty Hill on the 18th, and the lowest, 63°, from Davis on the 27th.

Maine.—(See *New England*.)

Maryland.—The mean temperature was 1.4° above the normal. The highest daily temperature, 102°, was recorded at Westminster on the 11th, and the lowest, 31°, at Deer Park on the 22d. The average amount of rainfall was 2.03, or 1.84 above the normal. The greatest amount, 4.76, was reported from Seaford, Del., and the least, 0.49, at Popes Creek. Thunderstorms were frequent over nearly the entire district. Hail was reported at Dover on the 16th, Laurel on the 7th, and Oldtown on the 4th. Frost occurred at Sunnyside on the 20th.

Massachusetts.—(See *New England*.)

Michigan.—The mean temperature for the State was just normal, that for the northern half being slightly below and that for the southern half slightly above the normal. The first eight days were quite cool, but on the 9th the temperature rose, exceeding the normal considerably on the 10th and 11th. Most stations recorded their maximum temperature on the 10th. On the 20th and 21st frosts were quite general on low ground in the northern half of the State, but damage was quite light. From the 23d to the 28th, inclusive, the temperature averaged from 5° to 6° above the normal. The rainfall during the month is notable for the fact that it ended one of the most severe and prolonged spring and summer droughts ever known in this State. There was a deficiency in the Upper Peninsula and northern countries and an excess in the central and southern countries. The greatest amount, 5.09, was recorded at Lansing, and the least, 1.34, at Sault Ste. Marie. The average for the whole State was 0.07 above normal.

Minnesota.—August averaged but one-tenth of a degree warmer than normal. Temperatures higher than usual prevailed from the 2d to the 17th, with hottest days on the 2d, 9th, 13th, and 16th. A cold spell set in on the 18th and continued to the 20th, succeeded by another warm spell from the 22d to the 28th. The 31st was cold; on this date nearly all stations reported their lowest temperatures. During both cold spells light frosts were frequent in low places, but they did no harm of consequence. The rainfall was 0.37 less than usual. The only days on which rain fell generally were the 8th, 9th, 13th, 16th, and 22d to the 26th. The rains of the 8th and 9th were excessive over limited areas and were accompanied by high winds and hail.

Mississippi.—The average precipitation, 4.63, was 0.67 above the normal. The largest amount, 12.60, was reported from Moss Point, and the least, 0.53, at Batesville. Rainfall was lightest in the northwest counties and heaviest over the extreme southern and southwestern portions. The highest temperature, 105°, was reported from Columbus on the 6th, and the lowest, 56°, from Corinth on the 11th. The mean temperature, 80.3°, was but 0.3° above the normal. Thunderstorms

occurred on numerous dates in portions of the State. Lightning is reported to have killed a small boy and a horse at Sulphur Springs, 4 miles north of Louisville.

Missouri.—In the central and northern sections the mean temperature was nearly normal; in the northeast section, 1.5° above; in the southeast section, about 1.0° above; and in the southwest section, about 1.0° below; the mean for the State was but 0.4° above the normal. The highest temperature, 104°, occurred at Unionville on the 12th, and the lowest, 48°, at Elmira on the 21st. The rainfall was heaviest in the northwest section, where, at a number of stations, it exceeded 8.00; throughout that section, the greater portion of the northeast section, and a considerable portion of the southwest section, it was decidedly in excess of the normal. The average for the State, 4.36, was 1.21 in excess. In the southeast section only there was a deficiency, viz, 0.50. As a rule the month was unusually favorable for corn and for the growth and maturing of fall crops; the rains of the last decade put fall pastures in good condition.

Montana.—The temperature was 2.2° below the normal. The highest daily temperature, 107°, was reported at Glendive on the 12th, and the lowest, 19°, at Grantsville on the 18th, 19th, and 20th. The average rainfall, 0.54°, was 0.89 less than the usual amount. It was very smoky during the early part of the month, especially in the western portion, owing to extensive forest fires. Frost occurred several times during the month. Snow was reported on the mountains and foot hills.

Nebraska.—The month was slightly warmer than normal, with moderate extremes of temperature, and with rainfall somewhat above the average. The highest temperature, 106°, occurred at Grand Island on the 8th, and the lowest, 39°, at Springview on the 31st. The average rainfall, 3.04, was but 0.40 above the normal. The heaviest rainfall occurred in the southeastern section, where the average for the month was 5.94. Hail occurred on the 4th, 8th, 10th, 18th, 22d, 23d, and 27th.

Nevada.—The mean temperature was 70.6°, or 1.1° below the normal. The highest daily temperature, 112°, was reported from St. Thomas on the 4th, and the lowest, 24°, was recorded at Elko on the 9th and Carlin on the 28th. Frosts were recorded on the 1st, 8th, 26th, 27th, 28th, 29th, 30th, and 31st. Ice of considerable thickness formed at Ruby Valley on the 8th, 29th, and 30th; at Reese River on the 27th; at Wells on the 8th and 29th, and at Sunnyside on the 27th, 28th, and 29th.

New England.—The mean temperature was normal at Eastport, slightly below at Portland, Concord, Hanover, and Strafford, and above in other sections. The observer at Strafford, Vt., reports this the coldest August but two in 20 years. The maximum and minimum temperatures were lower than usual at most stations, and there was a general frost in all low lands on the morning of the 23d. The only damage reported was to corn, etc., at Strafford, Vt., to all crops not protected by fog at East Templeton, Mass., to garden truck at North Billerica, Mass., where several acres were killed, and to cranberries in some bogs on Cape Cod. There was a slight excess in rainfall in most northern sections, and at places in the south where heavy local rains occurred on the 7th or 18th, but generally in all central and southern districts there was a deficiency. The rain was so well distributed, however, that growing crops were well supplied and suffered very little, but springs and wells are reported low. Hail was reported at Adams on the 17th, and Norwich on the 21st. Frosts were reported on the 20th, 21st, and 22d. Earthquake felt at Sanbornton at 4.15 a. m., on the 10th.

New Hampshire.—(See *New England*.)

New Jersey.—The warmest days of the month were the 9th, 10th, 11th, 19th, 24th, and 29th, when the maximum temperature ranged from 88° to 102°. The minimum temperature ranged from 34° to 57°, and occurred on the 1st, 19th, 20th, and 22d. The mean temperature was 74.2°, 2.2° above the normal. Precipitation was quite general throughout the northern portions on the 4th, 7th, 11th, 12th, 18th, and 27th, and in the southern portions on the 4th, 7th, 27th, 29th, and 31st. Widely scattered showers occurred in the latter sections on the 11th, 16th, 17th, and 20th. The average total precipitation, 2.53, was 2.21 less than the usual amount. Hail occurred at Perth Amboy on the 4th, and at Millville on the 16th. Frost was reported at three stations on the 22d.

New Mexico.—The month averaged a little below the normal in temperature, and the heat was more evenly distributed than usual. The warmest days were 1st to 14th, 16th to 18th, 21st, and 22d, and the coolest, 27th to 31st. The rainfall averaged above the normal, and as usual was quite unevenly distributed. The greatest total was 5.32, at Las Vegas, and the least, 0.12, at Raton. Light thunderstorms were frequent, and a few heavy ones were also reported. The observer at San Marcial reports one with excessive rainfall, doing a great deal of damage. Several light hailstorms were reported, but caused no severe damage.

New York.—The average temperature for the State was but 0.5° above the normal; it was generally below at northern stations, and above in the southern section, amounting to about 2° near the coast. The maximum temperature was 94° at Oneonta, on the 11th, and the minimum, 30°, at Saranac Lake on the 21st. The average precipitation at 25 stations was 0.50 above the normal amount. The heaviest general rainfall, ranging from 4.00 to 6.00 or more, occurred on the plateaus and near the coast, but the least, in the Hudson and St. Lawrence valleys and near the Lakes. The maximum amount was 8.27, at Wedge-

wood, and the minimum amount, 1.65, at Le Roy. Thunderstorms were frequent. Hail fell on the 4th, 6th, 17th, 18th, and 28th. The month was notable for severe electric storms, the most violent occurring on the 4th, 11th, 17th, 18th, and 28th. Those of the 17th and 28th were probably the severest New York has known for years. Frosts were generally reported on the 22d, and were light in most cases, but in some of the higher valleys of the plateaus were severe enough to kill buckwheat and late corn. A trace of snow was reported from Clroversville on the 21st. Toward the close of the month much injury from drought was sustained in the lower Hudson Valley and in some other portions of the southern tier.

North Carolina.—The month was nearly normal in its chief features, the temperature was only half a degree above, and the precipitation but half an inch below the average. It was quite favorable for the growth of crops and for farm work, and was free from violent local storms, though moderate thunderstorms were numerous, occurring on all dates, except the 1st, 2d, 3d, 18th, 19th, and 23d. The highest temperatures reached 98°; the lowest was 38°, on the 2d, at Linville, which is 2° lower than the previous lowest record (40° reported from Highlands on August 12, 1890). The precipitation was above the normal only in the western district, where the largest total amounts occurred in a few southern counties. The greatest total was 12.54 at Horse Cove. The rainfall was poorly distributed, especially in the central portion of the State, where droughty conditions continued to prevail until relieved by the general rains of the 15th and 16th. Hail was reported on the 9th and 27th, but no report of serious damage was received.

North Dakota.—The mean temperature, 64.5°, was the lowest by 2.2° of any previous record since the establishment of this State weather service. The extremes of temperature also averaged the lowest of any previous year, the highest reported being 104° and the lowest 24°. Killing frosts were general throughout a greater portion of the State. The greatest damage resulting therefrom was to tender vegetation, vines, and late corn, but, as a rule, the principal crops were either out of the way or so far matured as to place them beyond injury by frost. The rainfall has been slightly greater than that for previous years, with the exception of 1892, and was fairly well distributed. The greatest amount fell over the northeast portion; in Roulette, Cavalier, Pembina, Ramsey, and Nelson counties the average was about 2.24; in Mountrail County it was over 3.00, and also in Eddy County, in the north central portion of the State. In Richland County, in the extreme southeastern portion, over 2.00 occurred. A gale occurred at Portal on the 22d, accompanied by hail and rain, the former causing some damage to growing crops in that vicinity.

Ohio.—The month averaged above the normal as to temperature, and slightly below as to rainfall, but in the northern section precipitation was somewhat in excess. Drought continued in many sections, but was effectually broken by copious and timely rains on the 29th and 30th. The maximum temperature, 103°, occurred at Camp Dennison on the 9th and 17th, and at Clifton and Thurman on the 9th. The minimum was 31°, and occurred at Waterford on the 23d. The average total rainfall, 2.96, was 0.10 less than usual. There was a deficiency in all sections except the northern, where there was an excess of 0.55. The greatest amount of rain, 6.53, was recorded at Demos, and the least, 0.70, at Cedarville. Hail fell on 3d, 6th, 17th, 24th, and 28th; and very light frosts occurred in low lying districts on the 1st, 22d, and 31st at scattered points.

Oklahoma.—The average temperature, 79.2°, was only 0.2° below the normal. The highest temperature was 106°, at Anadarko on the 14th, and the lowest, 56°, at Pond Creek on the 7th. The greatest total rainfall was 8.30 at Keokuk Falls, and the least, 2.10, at Fort Sill. The average total precipitation, 5.06, was 1.90 in excess of the usual amount.

Pennsylvania.—The highest recorded temperatures occurred on the 11th, and were as follows: (Aqueduct) Logania, 101; Lebanon and York, 100; Gettysburg and Carlisle, 99°. The average temperature was 72.3°, or 2.9° above the normal. The rainfall was badly distributed, and injurious drought prevailed in many localities during most of the month. The average precipitation was 3.23, or 1.23 less than the usual amount. The largest total rainfall, 6.03, was recorded at Segerstown, and the smallest, 0.59, at Philadelphia. Hail was reported on the 4th, 6th, 8th, 11th, 16th, and 18th, and frost on the 18th, 20th, 22d, and 26th.

Rhode Island.—(See *New England*.)

South Carolina.—The month, as is usual, was of comparatively even temperature. There were two cool periods of short duration, one at the beginning and the other about the middle of the month. The average temperature was about 1° per day above the normal. Only one station reported a temperature of 100°. The rainfall averaged 130 per cent of the usual August amount, and was well distributed. An excess in rainfall in the Savannah Valley, however, caused some damage to crops in the low lands. The droughty condition that existed during the previous month in the northern and western counties, was relieved early in the month.

South Dakota.—The temperature reached or exceeded 100° at one or more stations on the 1st, 2d, 8th, 11th, 13th, 14th, 15th, 16th, 21st, 22d, 25th, and 26th. Lowest temperatures occurred quite generally over the northeast portion of the State, on the 31st, when light frosts were reported in many localities, and killing frosts, also, in many places, injuring vines and some late corn. General rains occurred on the 4th,

5th, 7th, 8th, 10th, 13th, 21st, and 27th, the heaviest on the 6th, 7th, 8th, and 26th.

Tennessee.—The month showed a slight excess of temperature as compared with the record of the past thirteen years, and a considerable deficiency in the normal amount of rainfall. These conditions, together with the normal percentage of sunshine, had a tendency to lessen the prospective yield of some growing and maturing crops, but were beneficial to others. The highest temperature, 98°, was recorded at Covington on the 27th and 28th, and the lowest, 46°, at Bristol on the 1st. Generally, the warmest weather was noted on the 18th, and the coolest on the 1st and 2d. The average rainfall was 2.80, nearly 1.00 less than normal. The rains were generally light and scattering. The days of greatest rainfall were the 6th, 10th, 16th, 17th, 20th, 21st, and 31st.

Texas.—Two distinct periods of warm weather were observed. The first prevailed from the 1st to the 3d, inclusive, and the highest temperatures were recorded over the western portions of the State on these dates; the second period prevailed from the 11th to the 14th, when the maximum temperatures at nearly all stations in the eastern and central portions were recorded. Two cool periods were experienced; the first from the 3d to the 8th, and the second from the 25th to the close of the month; on these dates the minimum temperature generally was recorded, except over the western part of the Panhandle, where it occurred on the 15th. The precipitation, on an average, was 0.85 below the normal. The deficiency ranged from 0.34 to 0.40 over central Texas, from 0.41 to 2.36 over north Texas, east portion of southwest Texas, and east Texas, and from 0.25 to 0.39 over the coast district; the greatest deficit was in the vicinity of Corpus Christi and Tyler. It ranged from normal to 3.85 above over the Panhandle and western Texas, with the greatest excess in the vicinity of Fort Stockton. The rainfall was not very well distributed and there was an almost total absence of rain during the first decade.

Utah.—The warmest days were the 6th and 17th, and the coolest, the 29th, 30th, and 31st. The highest temperature was 110°, at Manti, on the 6th, and the lowest, 29°, at Soldier Summit, on the 25th. The average precipitation was 0.35. Greatest amount, 1.42, was recorded at Koosharem, and the least, a trace, at Deseret and Heber. Hail was reported on the 8th, 12th, 18th, and 30th, and frost on the 6th, 9th, 10th, 17th, 24th, 25th, 29th, and 30th. The principal features of the weather were the warm dry days, and cold, chilly nights, large number of clear days, and great deficiency of precipitation. The afternoons were more or less windy, which had the effect of intensifying the prevailing drought.

Vermont.—(See *New England*.)

Virginia.—The month was unusually hot, and each heated spell of longer duration than ordinary. Almost every day the temperature was higher than the average, and it will be remembered as the hottest August for many years past. The total precipitation was considerably below the normal. It was heaviest in the mountain counties and in tidewater Virginia, and generally lightest over the grasslands.

Washington.—The month was excessively dry in all sections. No rain occurred, practically, until the 19th, in the northwestern portion, and ended in the eastern part of the State on the 21st. Prior to this the drought had been of six weeks continuance. The average rainfall was less than for any previous August, except west of the mountains, where the rain was a little in excess of that for the same month last year. The month was the coolest of which there is any record, notwithstanding the fact that there was so little rain and cloudiness. This is probably accounted for by the fact that on many days that were otherwise clear, the sun was almost entirely obscured by excessive smoke from forest fires, which extended over a great part of the eastern, as well as the entire western section of the State.

West Virginia.—The opening days were very cool, and the 2d was one of the coldest on record for that time of the month. Light frosts were reported from the mountain districts, but were too light to injure vegetation. From the 4th to 19th the temperature was above the normal; this period was one of intense heat and sultriness. The rainfall was more than one inch below the normal. As during the preceding months, the rainfall in the southern sections was much greater than in the northern. In the Greenbrier and Kanawha valleys it was apparently about normal, but in other sections the deficiency was very great. Some reports state that not one good rain fell during the entire month.

Wisconsin.—The month was characterized by high midday and low night temperatures, with daily means above the average. Light frosts occurred on the 12th, 21st, 28th, 30th, and 31st, and killing frosts on the 21st. The rainfall was fairly distributed throughout the month over all counties, except in the central southern portion of the State, where droughty conditions prevailed until the last week, when general and heavy rains helped all growing crops and started the grass. The average total rain, 2.80, was 0.43 above the usual amount.

Wyoming.—The mean temperature was 66°, being slightly below the normal. The highest temperature, 99°, was recorded at Fort Laramie, on the 13th, and the lowest, 20°, at Wise, on the 10th. Frosts occurred in several portions of the State on the 10th, 11th, 14th, 15th, and 21st. The average amount of precipitation was 0.91, being slightly above the normal. The greatest amount, 1.74, was recorded at Wise, and the least, a trace, at Wheatland.